

# **Watershed Forestry Plans - Changes; New Lot Proposals**

Commonwealth of Massachusetts  
Department of Conservation and Recreation  
Division of Water Supply Protection

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dcr  
Massachusetts



# Overview

- ✓ DWSP Land Management Planning status
- ✓ Forest Visioning and Heritage Plan
- ✓ Science and Technical Review of DWSP plans
- ✓ Status of current and proposed harvesting



# Land Management Plan (LMP) status

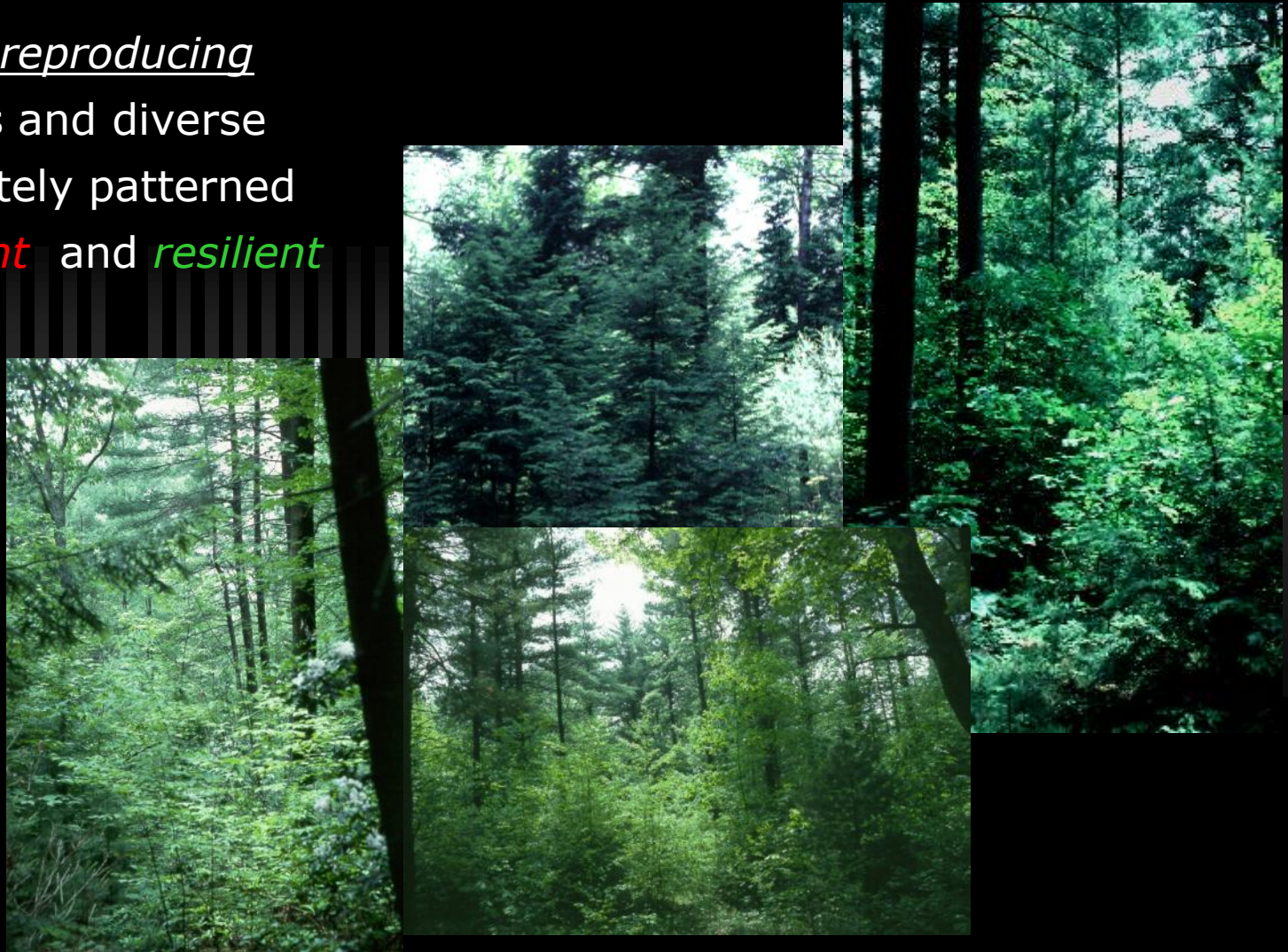
- ✓ Quabbin LMP 2007-2017
- ✓ Sudbury LMP 2004-2014
- ✓ Ware River LMP 2003-2013
- ✓ Wachusett LMP 2001-2010
- ✓ Merging of all LMPs into a **Comprehensive LMP**  
(to replace all of above, allowing more frequent system-wide updates)





# Guiding principle: most desirable watershed cover is a diverse, vigorous, multi-layered forest

- ✓ Actively reproducing
- ✓ Vigorous and diverse
- ✓ Deliberately patterned
- ✓ *Resistant* and *resilient*



# How does DWSP build **resistance**/resilience?

## Principles of sustainable watershed silviculture

- ✓ Increase diversity by cutting the smallest regeneration openings that will meet silvicultural objectives
- ✓ Cut less than 25% of any subwatershed in any given 10 yr mgt period
- ✓ Retain filter strips and engineer a separation between water and roads
- ✓ Work to control the impacts of deer, moose, and invasive plants on tree regeneration
- ✓ Monitor, improve, and repeat





# Forest Futures Visioning Process (FFVP), Forest Heritage Plan (FHP), and STAC review

- ✓ In response to public concerns (clearcutting, biomass), the DCR Stewardship Committee in 2009 called for a process to review the vision of the future for DCR state forests and parks
- ✓ FFVP began on April 21, 2009 and was completed one year later with EOEEA Secretary Ian Bowles' announcement of the Commonwealth Forest Heritage Plan (FHP), his response to the FFVP recommendations.
- ✓ FHP called for rezoning of all state forests and parks (not watersheds) into Parklands, Reserves, and Woodlands and further required DWSP and DFG to review their forest practices and coordinate with DCR practices
- ✓ DWSP review was accomplished via the independent Science and Technical Advisory Committee (STAC), with a final report issued in late 2012



## From Here Forward: DWSP responses to STAC report

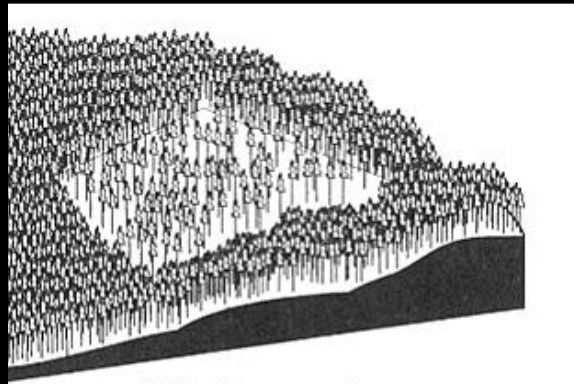
The DCR Division of Water Supply Protection, Office of Watershed Management

- ✓ Will produce accessible LMP summaries, per recommendations
- ✓ Is continuing to build watershed protection for Wachusett Reservoir
- ✓ Is continuing to refine lot review process and public awareness, via public meetings, online postings, and on-site tours and signage
- ✓ Plans to restart forest management primarily using small, irregularly shaped regeneration openings, with green retention in larger openings
- ✓ Is working to implement USDA FS Best Mgt Practices monitoring protocol and will establish photo points on some harvest lots, and post images online
- ✓ Is committed to a greater level of routine water quality monitoring within harvest areas, and is refining both short and long-term monitoring programs
- ✓ Has released Terrestrial Invasive Plants Management Strategy, online @ <http://www.mass.gov/eea/agencies/dcr/water-res-protection/watershed-mgmt/plans.html>

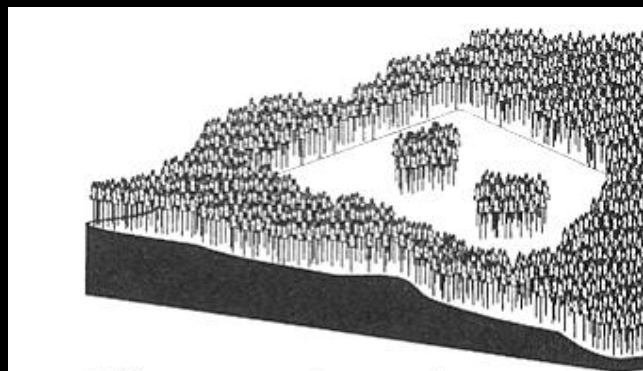


# Increased 'green retention' in larger openings

Small openings  
(,0.5 ac) with NO  
retention



Larger  
openings  
with  
dispersed  
retention



Larger  
openings with  
aggregated  
retention



# Enhanced water monitoring below forest mgt

✓ **Short-term water monitoring**, to assess changes in turbidity below stream crossings

✓ **Long-term water monitoring**

- ✓ Paired-watershed system
- ✓ Untreated versus treated
- ✓ Routine and snowmelt/storm events
- ✓ Changes in discharge, nutrient/sediment concentrations, and loading of the receiving reservoir



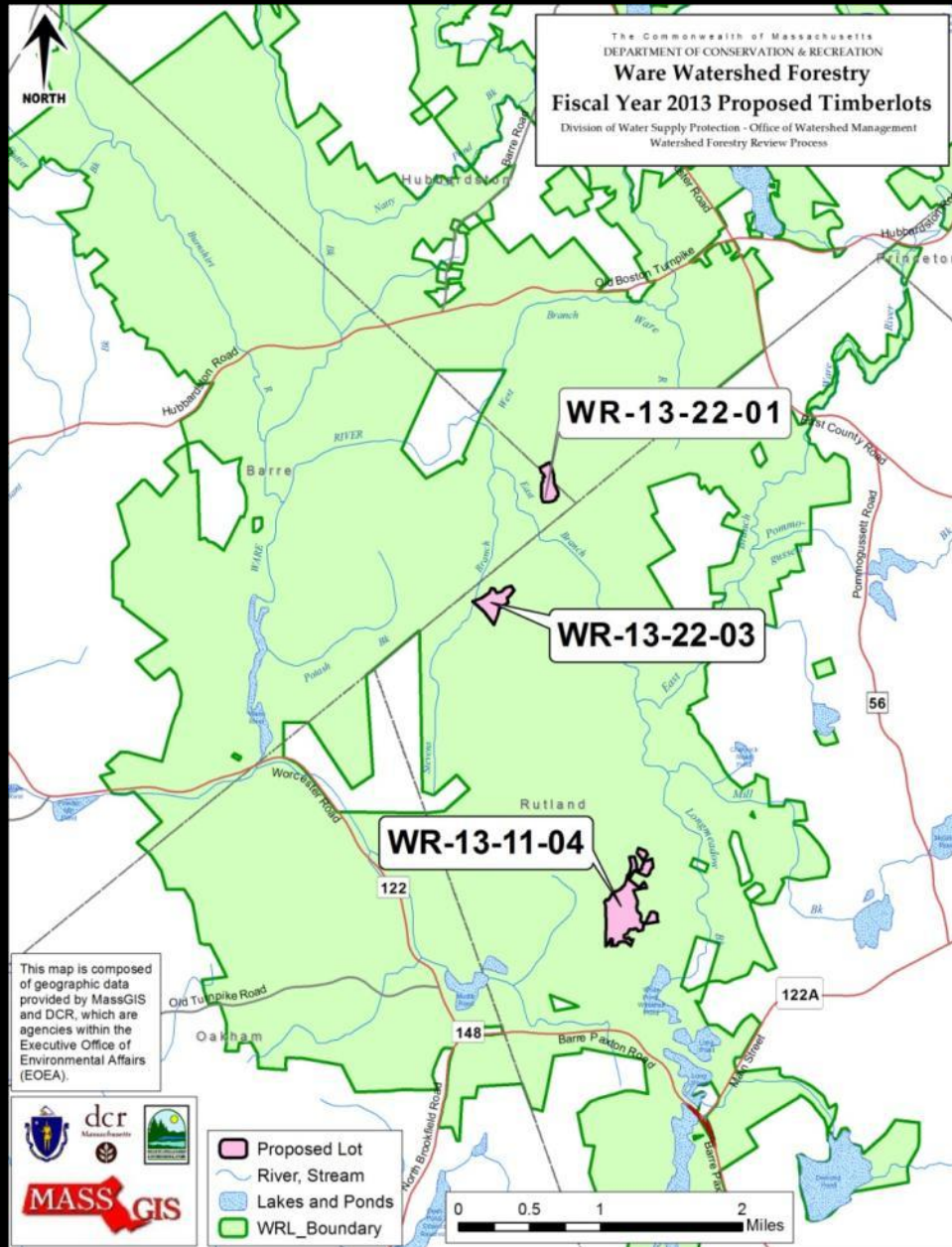
# Summary of silviculture for proposals

- ✓ Target stands with low age or species diversity, and/or low vigor due to overcrowding or insect/disease infestations
- ✓ Address regeneration needs using irregularly shaped, well-distributed openings
- ✓ Maintain well-stocked forest between openings
- ✓ In thinnings, retain and enhance the growth of the most vigorous, long-lived, well-formed trees





# Ware River lot proposals

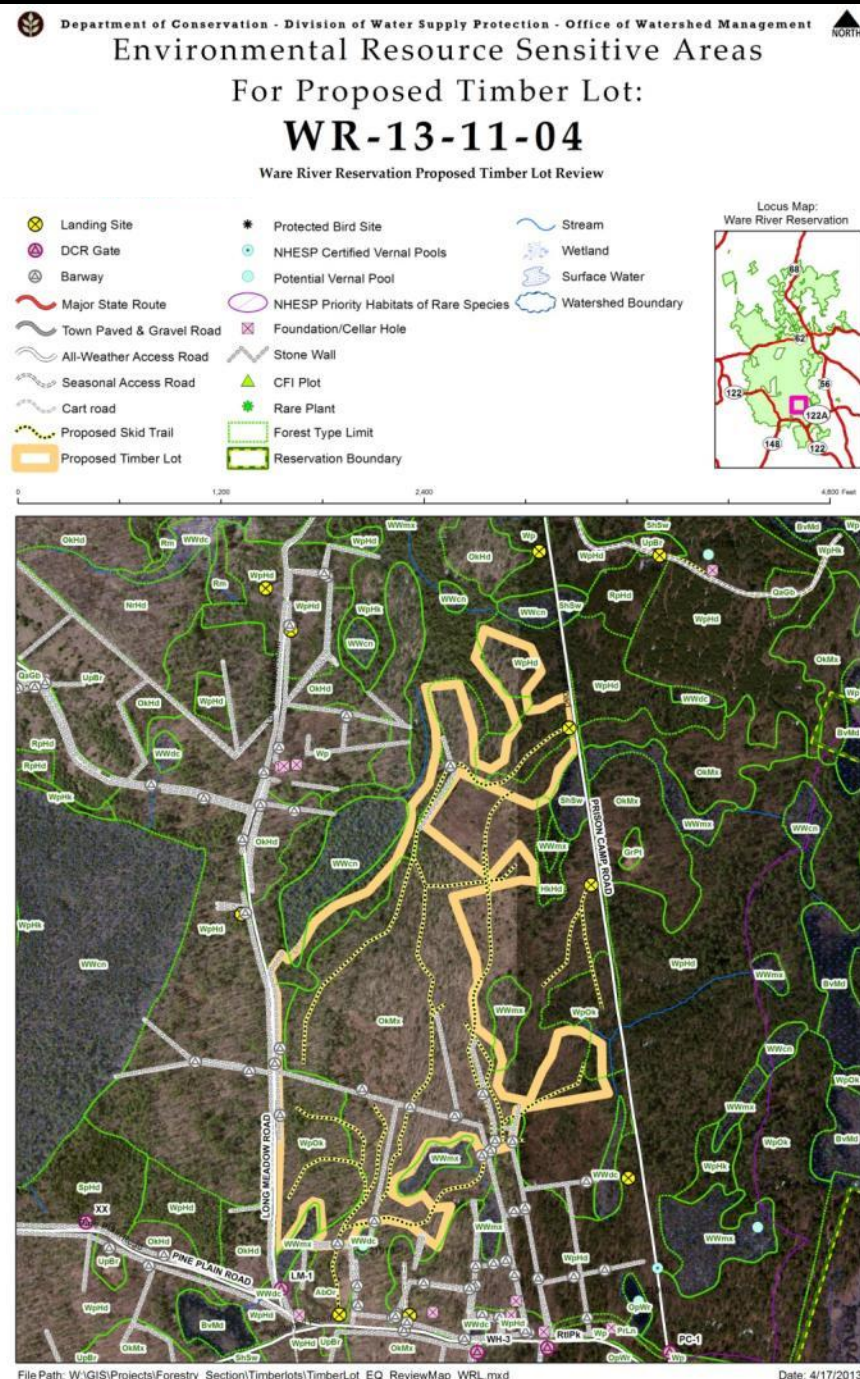


# Whitehall Road proposal

- ✓ Located in the town of Rutland – north of Whitehall Road and west of Prison Camp Road
- ✓ 63 acres total – predominately mixed oak type that has been harvested several times in the past few decades
- ✓ This proposed operation is aimed at releasing some of the existing regeneration in small irregular groups and thinning to improve growing conditions
- ✓ This lot is interspersed with wetlands and is adjacent to a vernal pool



# Whitehall Road proposal

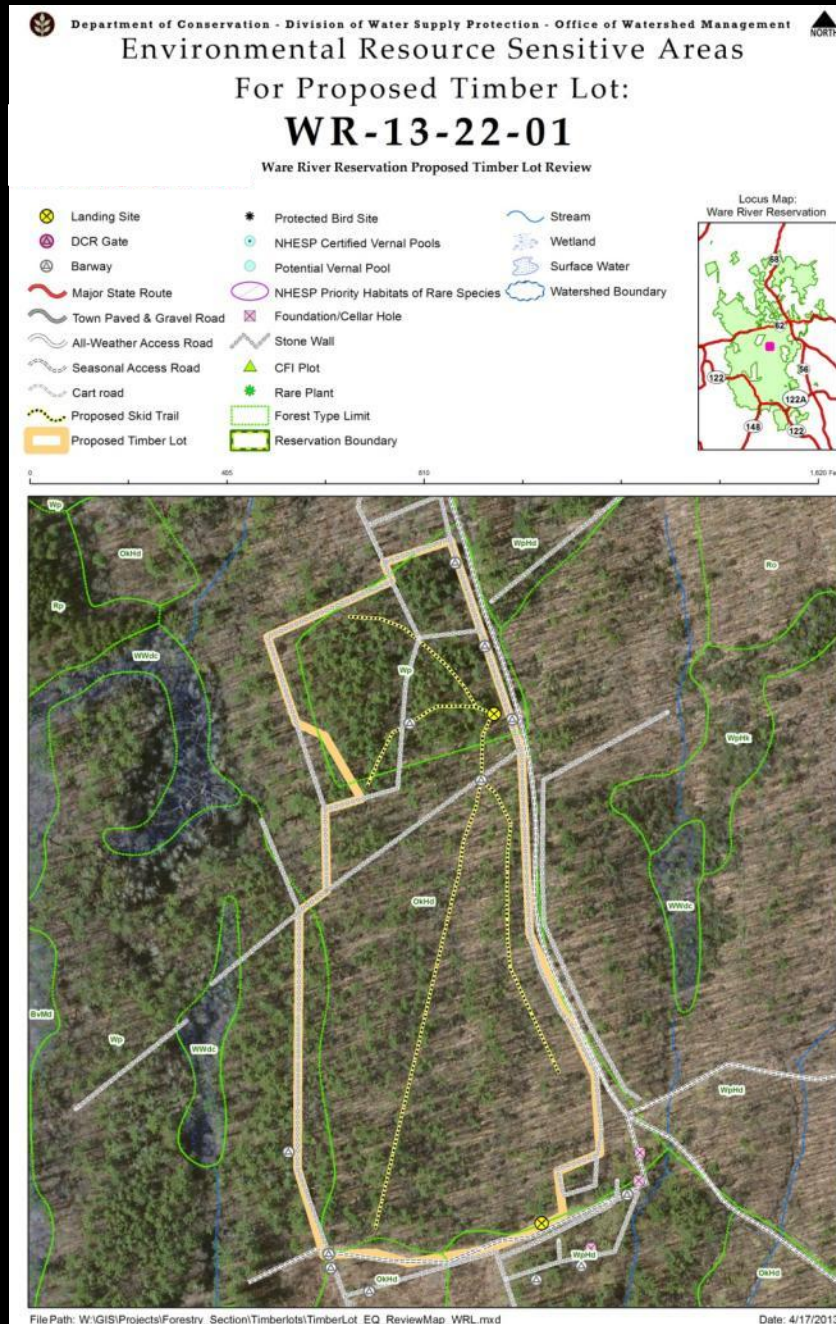


# Brigham Road proposal

- ✓ Located in Barre – west of Brigham Road
- ✓ 15 acres total – mostly white pine/ oak type except for a section of old field pine at the northern end.
- ✓ This operation is aimed at improving the growing conditions in the white pine oak type and regenerating some of the old field pine type.
- ✓ There are 3 cellar holes adjacent to this lot.



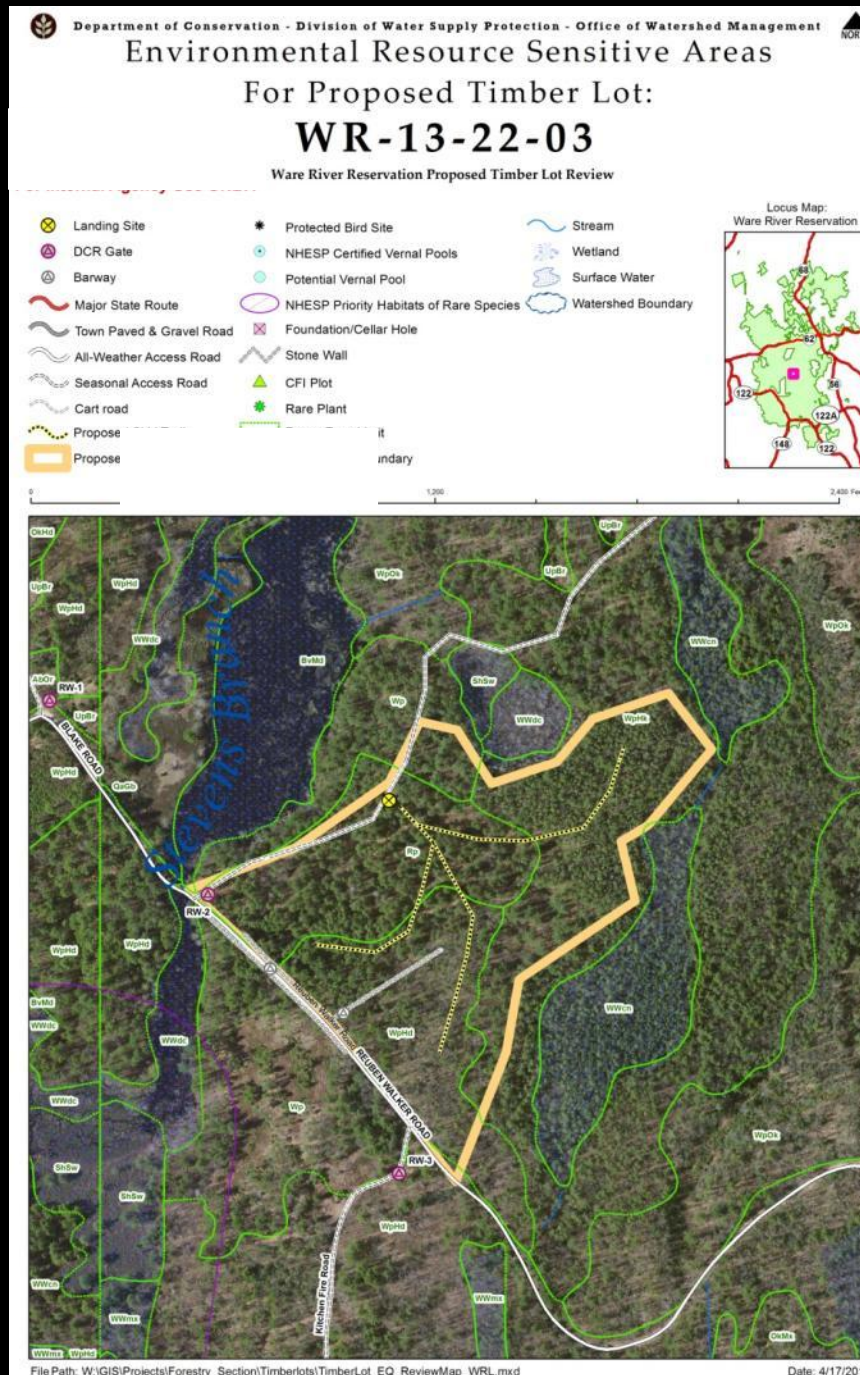
# Brigham Road proposal



# Stevens Brook proposal

- ✓ Located in the Town of Barre – north of Reuben Walker Road and east of Stevens Brook
- ✓ 21 acres total – predominately the white pine/ hardwood forest type except for the red pine/ white pine plantation in the southwest section of this proposal
- ✓ This plantation has been treated several times in the past
- ✓ This operation is aimed at removing some of the red pine before the red pine scale impacts it and some of the low vigor poorly formed white pine
- ✓ There is a vernal pool on this lot and several wetlands adjacent to it

# Stevens Brook proposal





# Finally...



- ✓ The protection forest surrounding Boston's water supply has been **actively managed by this agency for >50 years**.
- ✓ During that time, **1,000+ timber sales** have been conducted, improving forest vigor, diversity, quality, and value while supplying natural resources to support the rural Massachusetts economy, and protecting or enhancing uncommon species/habitats and cultural resources.
- ✓ The water supply has remained, throughout that same time, amongst the cleanest in the world, **with no measured degradation related to active forest management**, verified by consistent routine monitoring that currently includes **1,500 water samples per month**.

**Public tours** will be offered for the proposed timber sales. We could discuss some dates for these tours at this meeting. Tour dates will also be posted on the DCR web site A.S.A.P. .

